

## PATENT COOPERATION TREATY

PCT

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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY  
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 99796MJ	<b>FOR FURTHER ACTION</b>	
See Form PCT/IPEA/416		
International application No. PCT/HU2004/000018	International filing date (day/month/year) 27.02.2004	Priority date (day/month/year) 20.06.2003
International Patent Classification (IPC) or national classification and IPC A21C3/04, B21C23/00, B29C47/06, B29C47/20, B29C47/26, B29C47/28, B29C47/24		
Applicant DR-PACK II. LTD		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 7 sheets, including this cover sheet.

3. This report is also accompanied by ANNEXES, comprising:

- (sent to the applicant and to the International Bureau)* a total of 4 sheets, as follows:
  - sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
  - sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
- (sent to the International Bureau only)* a total of (indicate type and number of electronic carrier(s)), containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

Date of submission of the demand 16.11.2004	Date of completion of this report 22.04.2005
Name and mailing address of the international preliminary examining authority:   European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016	Authorized Officer  Ingelgard, T. Telephone No. +31 70 340-2258



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## Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
  - This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
    - international search (under Rules 12.3 and 23.1(b))
    - publication of the international application (under Rule 12.4)
    - international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements\*** of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

### Description, Pages

1-20 as originally filed

### Claims, Numbers

1-9 received on 16.11.2004 with letter of 15.11.2004

### Drawings, Sheets

1/3-3/3 as originally filed

a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3.  The amendments have resulted in the cancellation of:
  - the description, pages
  - the claims, Nos.
  - the drawings, sheets/figs
  - the sequence listing (*specify*):
  - any table(s) related to sequence listing (*specify*):
4.  This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
  - the description, pages
  - the claims, Nos.
  - the drawings, sheets/figs
  - the sequence listing (*specify*):
  - any table(s) related to sequence listing (*specify*):

\* If item 4 applies, some or all of these sheets may be marked "superseded."

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## **Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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### **1. Statement**

Novelty (N)	Yes:	Claims	4
	No:	Claims	1-3, 5-9
Inventive step (IS)	Yes:	Claims	4
	No:	Claims	1-3, 5-9
Industrial applicability (IA)	Yes:	Claims	1-9
	No:	Claims	

### **2. Citations and explanations (Rule 70.7):**

**see separate sheet**

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## **Box No. VII Certain defects in the international application**

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The following defects in the form or contents of the international application have been noted:

**see separate sheet**

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## **Box No. VIII Certain observations on the international application**

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The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

**see separate sheet**

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**Re Item V**

1 Reference is made to the following documents:

D1: US 4450 131 A (MARTINEK THOMAS W) 22 May 1984 (1984-05-22)  
D2: US 6 045 737 A (HARVEY ANDREW C ET AL) 4 April 2000 (2000-04-04)  
D3: EP 0 781 642 A (CONENOR OY) 2 July 1997 (1997-07-02)

2 INDEPENDENT CLAIM 1

2.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT. Document D1 discloses (the references in parenthesis applying to this document):

A process for extruding tubular products, comprising the steps of feeding a pressurized material, into an extruder nozzle (83), and forcing this material to flow through a duct formed between an outer and an inner components, then shaping the tubular product by pressing the material flow through an annular drawing aperture at the duct end of the extruder nozzle, wherein the material flow entering the extruder nozzle is distributed along the duct - in the direction of progress of the entering material flow - by being first led into an annular expansion chamber (70, 72) after an inlet, the cross-section of which is selected **at least on order of magnitude** greater than that of the inlet; and when the annular expansion chamber has been completely filled up by the material flow whose pressure has become higher than the flow resistance of a homogenizing ring channel having a cross-section narrowed to and connected to the annular expansion chamber, then in the homogenizing ring channel (78, 36) the material flow is moved in cross direction to the entering direction thereof, and it is homogenized by the relative rotation of surfaces (44, 34) partly delimiting at least the homogenizing ring channel, and the material flow is led to a drawing aperture (12) by way of a helical forced movement, **wherein the material flow between the radial inlet and the drawing aperture has a single main direction change only** (figure 1).

Claim 1 is also not novel over document D2.

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**3 INDEPENDENT CLAIM 3**

3.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 3 is not new in the sense of Article 33(2) PCT. Document D1 discloses (the references in parenthesis applying to this document):

An extruder nozzle suitable for producing tubular products, comprising an external nozzle component (34) and an internal nozzle core (20, 96) embedded therein, with a material distribution duct arranged between the external nozzle component and the internal nozzle core; the external nozzle component having an inlet for receiving the pressurized material (83), which is connected to a drawing aperture through the duct (12), wherein the **external nozzle component is fixed; the internal nozzle core of the extruder nozzle is rotatable embedded in the fixed external nozzle component** (column 3, line 44 - line 55), and provided with a rotary drive (implicitly comprised in D1); said material distribution duct comprises an annular expansion chamber (70, 72) connected to the radial inlet of the **fixed external nozzle component**; the cross-section of the annular expansion chamber is at least one magnitude greater than that of the inlet; said material distribution duct comprises a homogenizing ring channel (78) connected with its one end to the annular expansion chamber and its cross-section is narrowed to the required proportion in comparison to the annular expansion chamber, and its other end is connected to the drawing aperture (12).

Claim 3 is also not novel over document D2.

**4 DEPENDENT CLAIMS 2, 5-8 and 9**

Dependent claims 2, 5-8 and 9 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty (Article 33(2) and (3) PCT). See documents D1 and D2.

**5 INDEPENDENT CLAIM 4**

5.1 Document D2, which is considered to represent the most relevant state of the art, discloses:

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An extruder nozzle from which the subject-matter of independent claim 4 differs in that:

A skirt surface of a delimiting sleeve is embedded freely rotatable in the external nozzle component.

5.1 .1 The subject-matter of claim 4 is therefore novel (Article 33(2) PCT)

5.1.2 The solution to the problem of the material getting stuck, proposed in claim 4 of the present application is considered as involving an inventive step (Article 33(3) PCT) for the following reasons:

Document D3 shows a freely rotatable helix shaped mandrel, The mandrel does not have the same function as the skirt surface of the present application and therefore document D3 is not considered to be combinable with documents D1 or D2.

**6 Industrial applicability**

6.1 Claims 1-9 are industrially applicable.

**Re Item VI and VII**

**7 Clarity**

7.1 Although claims 3 and 4 have been drafted as separate independent claims, they appear to relate effectively to the same subject-matter and to differ from each other only with regard to the definition of the subject-matter for which protection is sought. The aforementioned claims therefore lack conciseness and as such do not meet the requirements of Article 6 PCT.

7.2 The amendment of claim 4, where the word "skirt" has been deleted from the expression "skirt surface" has rendered the claim unclear as further down the claim a further skirt surface is called "another skirt surface" (Article 6 PCT).

**8 Amendments and added subject-matter**

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8.1 The amendments filed with the letter dated 15.11.2004 introduce subject-matter which extends beyond the content of the application as filed, contrary to Article 34(2)(b) PCT. The amendments concerned are the following:

Claim 1: "the drawing aperture has a single main direction change only"

Claim 4: the word "skirt" has been deleted from the expression "skirt surface"

Claim 4: "radial second inlet"

Claim 5: "and in any given case"

Claim 7: "can be changed for different products"

**9 Further remarks**

9.1 Features described after statements like "particularly", "advantageously" and "and/or" are considered to be optional.

9.2 Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the documents D1 and D2 is not mentioned in the description, nor are these documents identified therein.

9.3 The description is not in conformity with the claims as required by Rule 5.1(a)(iii) PCT.